

Amendments to the Specification:

Please replace the paragraph beginning at page 13, line 7 with the following amended paragraph:

In FIG. 2(D), the driving element is configured by three transistors. A current data amplifier circuit in FIG. ~~[[2(A)]]~~ 2(D) includes a first switch 12, a second switch 13, a third switch 14 and a fourth switch 18 besides the driving element 15. The first switch 12, the second switch 13, the third switch 14, and the fourth switch 18 correspond to methods to switch over a series connection state and a parallel connection state of the plurality of transistors provided in the driving element.

Please replace the paragraph beginning at page 15, line 28 with the following amended paragraph:

Based on a source potential of the transistor, a gate potential is given as  $V_g$ , a drain potential is given as  $V_d$ , and a current flowing between the source and drain is given as  $I_d$ . In FIGS. 4(A) and 4(B), curves 803 to 806 and the like are  $I_d$ - $V_d$  characteristic curves under a certain constant gate potential  $V_g$ . A bold solid line 801 shows the change in  $I_d$ - $V_d$  under the condition in which the  $V_g$  and  $V_d$  are equal by short-circuiting the gate and drain of one of the two transistors configuring the driving element. That is, the bold solid line 801 reflects the specific electrical characteristics (field effect mobility and a threshold voltage) of the transistors. Similarly, a bold ~~[[wavy]]~~ dashed line 802 shows the change in  $I_d$ - $V_d$  under the condition in which the  $V_g$  and  $V_d$  are equal by short-circuiting the gate and drain of the other transistors configuring the driving element.

Please replace the paragraph beginning at page 16, line 9 with the following amended paragraph:

FIGS. 4(A) and 4(B) show how the output current changes by "switching over series and parallel" as the configuration of the invention in the case where each of the two transistors

configuring the driving element has different electrical characteristics. FIG. 4(A) shows an example in which the difference in field effect mobility is particularly large between the two transistors. Therefore, difference in curvatures between the bold solid line 801 and the bold dashed line 802 is large. FIG. 4(B) shows an example in which the difference in threshold voltage is particularly large between the two transistors. Therefore, difference between the bold solid line 801 and the bold dashed line 802 is large at the starting point ( $I_d = 0$ ). In conclusion, the output current in each case corresponds to lengths of arrows with triangle arrowheads in 807. Brief explanation will be made on this below.

Please replace the paragraph beginning at page 17, line 18 with the following amended paragraph:

Subsequently, in the case of FIG. 4(A), the case where the bold solid line 801 corresponds to a characteristic curve of the transistor 15a and the bold dashed line 802 corresponds to a characteristic curve of the transistor 15b is explained.

Please replace the paragraph beginning at page 17, line 29 with the following amended paragraph:

On the other hand, the transistor 15b operates in non-saturation region when writing data current. A drain voltage  $V_d$  of the transistor 15b is equivalent to what deducted a drain voltage  $V_d$  of the transistor 15a from a gate voltage  $V_g$  of the transistor 15b, therefore, lengths of two horizontal double-dashed arrows are equal when an operation point of the transistor 15b is dependent on the input data current value  $I_{in}$  on the solid line 805.

Please replace the paragraph beginning at page 18, line 5 with the following amended paragraph:

When outputting current data, the first switch 12 and the second switch 13 in FIG. 2(B) are turned ON and the third switch 14 is turned OFF. As the third switch 14 is turned OFF, gate potentials of the transistors 15a and 15b are stored as they are of the time of data current writing.

As a result the gate voltage  $V_g$  of the both transistors 15a and 15b becomes the sum of each drain voltage  $V_d$  of the transistors 15a and 15b at the time of data current wiring. The transistors 15a and 15b operate in saturation region when outputting current. Therefore, the operation point of the transistor 15b is an intersection point of a chain double-dashed curve 806 and the bold ~~[[wavy]]~~ dashed line 802, and the operation point of the transistor 15a is an intersection point of the other chain double-dashed curve 806 and the bold solid line 801. Furthermore, as the transistors 15a and 15b are connected in parallel, the output current  $I_{out}$  is twice as large as the length of a chain double-dashed arrow with a triangle arrowhead in 807.

Please replace the paragraph beginning at page 18, line 17 with the following amended paragraph:

Similarly in FIG. 4(A), in the case where the bold ~~[[wavy]]~~ dashed line 802 corresponds to both characteristic curves of the transistors 15a and 15b, the output current  $I_{out}$  becomes twice as large as the length of a broken arrow with a triangle arrowhead in 807. In FIG. 4(A), in the case where the bold ~~[[wavy]]~~ dashed line 802 corresponds to the characteristic curve of the transistor 15a and the bold solid line 801 corresponds to the characteristic curve of the transistor 15b, the output current  $I_{out}$  becomes twice as large as the length of a dashed arrow with a triangle arrowhead in 807.

Please replace the paragraph beginning at page 18, line 29 with the following amended paragraph:

As a comparison to this variation, variation of the output current  $I_{out}$  in the current data amplifier circuit of FIG. 3 are shown in 808. Reference numeral 808 in FIG. 4(A) is an output current  $I_{out}$  in the case where electrical characteristics of transistors ~~512 or 513 to 514~~<sup>[sic]</sup> 312 or 313 in current mirror configuration shown in FIG. 3 correspond to the bold solid line 801 or the bold ~~[[wavy]]~~ dashed line 802 in FIG. 4(A).

Please replace the paragraph beginning at page 19, line 10 with the following amended paragraph:

Next, the case of FIG. 4(B) is explained. The same as FIG. 4(A) can be applied to FIG. 4(B). As for the current data amplifier circuit in FIG. 2(B) of the embodiment of the invention, in the case where the bold solid line 801 corresponds to the characteristic curves of the both transistors 15a and 15b, the output current  $I_{out}$  becomes twice as large as the length of the solid arrow with a triangle arrowhead in 807. In the case where the bold solid line 801 corresponds to the characteristic curve of the transistor 15a and the bold dashed line 802 corresponds to the characteristic curve of the transistor 15b, the output current  $I_{out}$  becomes twice as large as the length of the chain double-dashed arrow with a triangle arrowhead in 807. In the case where the bold dashed line 802 corresponds to the characteristic curves of both transistors 15a and 15b, the output current  $I_{out}$  becomes twice as large as the broken arrow with a triangle arrowhead in 807. In the case where the bold dashed line 802 corresponds to the characteristic curve of the transistor 15a and the bold solid line 801 corresponds to the characteristic curve of the transistor 15b, the output current  $I_{out}$  becomes twice as large as the length of a chain dashed arrow with a triangle arrowhead in 807.

Please replace the paragraph beginning at page 19, line 29 with the following amended paragraph:

Variation of the output current  $I_{out}$  in the current data amplifier circuit of FIG. 3 are shown with the length of each arrow in 808. Reference numeral 808 in FIG. 4(B) is an output current  $I_{out}$  in the case where electrical characteristics of transistors ~~512 or 513 to 514~~ 312 or 313 in current mirror configuration shown in FIG. 3 correspond to the bold solid line 801 or the bold dashed line 802 in FIG. 4(B).

Please replace the paragraph beginning at page 21, line 18 with the following amended paragraph:

FIG. 5(B) is a digital still camera which, in this example, is composed of a main body 2101, a display portion 2102, an image-receiving portion 2103, operation keys 2104, an external connection port 2105, a shutter 2106, and the like. The current data amplifier circuit of the invention can be used in an IC (Integrated Circuit) for controlling the display portion 2102 and the image-receiving portion 2103, an IC for processing video signals, or a system circuit and the like. In the case where the current data amplifier circuit of the invention is fabricated by using polysilicon TFTs, it can also be fabricated directly on a substrate in the display portion [[2003]] 2102.

Please replace the paragraph beginning at page 21, line 26 with the following amended paragraph:

FIG. 5(C) is a laptop computer which, in this example, is composed of a main body 2201, a frame 2202, a display portion 2203, a keyboard 2204, an external connection port 2205, a pointing mouse 2206, and the like. The current data amplifier circuit of the invention can be used in an IC (Integrated Circuit) for controlling the display portion 2203, an IC for processing video signals, or a system circuit and the like. In the case where the current data amplifier circuit of the invention is fabricated by using polysilicon TFTs, it can also be fabricated directly on a substrate in the display portion [[2003]] 2203.

Please replace the paragraph beginning at page 22, line 4 with the following amended paragraph:

FIG. 5(D) is a mobile computer which, in this example, is composed of a main body 2301, a display portion 2302, a switch 2303, operation keys 2304, an infrared port 2305, and the like. The current data amplifier circuit of the invention can be used in an IC (Integrated Circuit) for controlling the display portion 2302, an IC for processing video signals, or a system circuit and the like. In the case where the current data amplifier circuit of the invention is fabricated by

using polysilicon TFTs, it can also be fabricated directly on a substrate in the display portion ~~[[2003]] 2302~~.

Please replace the paragraph beginning at page 22, line 12 with the following amended paragraph:

FIG. 5(E) is a portable image reproduction device provided with a recording medium (specifically, a DVD reproduction device) which, in this example, is composed of a main body 2401, a frame 2402, a display portion A 2403, a display portion B 2404, a recording medium (such as a DVD) read-in portion 2405, operation keys 2406, a speaker portion 2407, and the like. The current data amplifier circuit of the invention can be used in an IC (Integrated Circuit) for controlling the display portion A 2403 and the display portion B 2404, an IC for processing video signals, or a system circuit and the like. In the case where the current data amplifier circuit of the invention is fabricated by using polysilicon TFTs, it can also be fabricated directly on a substrate in the display ~~portion 2403~~ portions 2403 and 2404. Note that image reproduction devices provided with a recording medium include game machines for domestic use and the like.

Please replace the paragraph beginning at page 22, line 23 with the following amended paragraph:

FIG. 5(F) is a goggle type display (head mounted display) which, in this example, is composed of a main body 2501, a display portion 2502, an arm 2503, and the like. The current data amplifier circuit of the invention can be used in an IC (Integrated Circuit) for controlling the display portion 2502, an IC for processing video signals, or a system circuit and the like. In the case where the current data amplifier circuit of the invention is fabricated by using polysilicon TFTs, it can also be fabricated directly on a substrate in the display portion ~~[[2003]] 2502~~.

Please replace the paragraph beginning at page 22, line 30 with the following amended paragraph:

FIG. 5(G) is a video camera which, in this example, is composed of a main body 2601, a display portion 2602, a frame 2603, an external connection port 2604, a remote control receiving portion 2605, an image receiving portion 2606, a battery 2607, an audio input portion 2608, operation keys 2609, an eyepiece portion 2610, and the like. The current data amplifier circuit of the invention can be used in an IC (Integrated Circuit) for controlling the display portion 2602, an IC for processing video signals, or a system circuit and the like. In the case where the current data amplifier circuit of the invention is fabricated by using polysilicon TFTs, it can also be fabricated directly on a substrate in the display portion ~~[[2003]]~~ 2602.

Please replace the paragraph beginning at page 23, line 9 with the following amended paragraph:

FIG. 5(H) is a mobile phone which, in this example, is composed of a main body 2701, a frame 2702, a display portion 2703, an audio input portion 2704, an audio output portion 2705, operation keys 2706, an external connection port 2707, an antenna 2708, and the like. The current data amplifier circuit of the invention can be used in an IC (Integrated Circuit) for controlling the display portion 2703, an IC for processing video signals, or a system circuit and the like. In the case where the current data amplifier circuit of the invention is fabricated by using polysilicon TFTs, it can also be fabricated directly on a substrate in the display portion ~~[[2003]]~~ 2703.